Chapter Five

An Industry Outlook: Guarded Optimism

In 1992 and 1993, after several years of poor performance, the banking industry earned record profits. The average return on assets for commercial banks in 1993 was 1.2 percent--the first time since the creation of the Federal Deposit Insurance Corporation that the annual return exceeded 1 percent. At the same time, the return on equity for the industry exceeded 15 percent.

Several factors contribute to the improved health of the banking industry, even as it undergoes continued structural change and consolidation. In particular, favorable interest rate conditions and a growing economy have enabled banks to prosper. Banks have been able to take advantage of the fact that they can pay less for their liabilities and receive greater returns on assets. Growth in noninterest income also contributed to higher earnings. Moreover, the growing economy has helped to reduce the amount of troubled assets--noncurrent loans declined in all regions of the country and among all major loan categories--which means that banks do not have to set aside as much money to cover potentially bad loans. In 1993, commercial banks set aside $16.6 billion to cover loan losses, the lowest annual total since 1984.[1]

Although the banking industry has generally improved, some remnants of the troubled times remain. As a group, money center banks ($10 billion or more in assets) have 4 percent of their real estate loans in noncurrent or past-due status, and had 14 percent of their construction and development real estate loans in noncurrent status as of the fourth quarter of 1993. Also for this period, some 570 troubled banks with $330 billion in assets, or 4 percent of banks and 7 percent of bank assets insured by the Bank Insurance Fund, made the FDIC's problem bank list. Although favorable interest rate conditions have allowed banks to increase profits and replenish their capital, their increased exposure to interest rate risk warrants guarded optimism.

The Exposure of the Bank Insurance Fund to Losses from Bank Resolutions

As the banking industry continues to earn record profits, the outlook for the BIF has improved. After incurring positive outlays from 1988 to 1992, the fund is now in the black. Its balance (net worth) rebounded to $6.8 billion at the second quarter of 1993 from negative $100 million at the end of 1992 and negative $7 billion at the end of 1991.[2] In its

1. See Federal Deposit Insurance Corporation, Division of Research and Statistics, *Quarterly Banking Profile, Fourth Quarter, 1993* (1994), pp. 1-2.

2. Federal Deposit Insurance Corporation, "Bank Insurance Fund Balance Increased to $6.8 Billion at Mid-Year 1993, According to Preliminary Results from the FDIC" (press release, August 10, 1993); and Barbara A. Rehm, "Bank Fund in the Black; Treasury Loan Repaid," *The American Banker* (August 11, 1993), pp. 1 and 22.

Table 8.
Assets and Resolution Costs of Resolved Banks, Grouped by Size, 1987-1992

Asset Size	Resolutions, 1987-1992		Assets Recorded at Time of Resolution		Resolution Costs to the Bank Insurance Fund	
	Number	Percentage of Total	Millions of Dollars	Percentage of Total	Millions of Dollars	Percentage of Total
Less Than $100 Million	824	79	23,352	11	5,504	19
Between $100 Million and $500 Million	163	16	37,362	17	7,054	24
More Than $500 Million	62	6	153,901	72	17,089	58
Total	1,049	100	214,615	100	29,647	100

SOURCE: Congressional Budget Office analysis based on data from the Federal Deposit Insurance Corporation.

NOTE: Banks are grouped according to assets recorded at time of failure.

January 1994 baseline, the Congressional Budget Office projected that the BIF will take in $8 billion more than it spends in fiscal year 1994 and continue in the black with a smaller excess over the next several years.

Projecting expected losses to the insurance fund is an important component of managing the fund. Longer-term projections of the assets and resolution costs can be helpful in setting deposit insurance premiums. Regulators use information on expected losses from resolutions, other expenses, and income to calculate appropriate levels for premiums. Two factors that influence the BIF's exposure to losses are capitalization and asset size of an insured institution. Generally, well-capitalized banks are healthy. Indeed, capitalization ratios are a major factor in the regulatory decision to resolve an institution. But more important for the insurance fund, the higher the level of capital for a bank, the larger the buffer (to absorb loan losses) between solvency and resolution. Furthermore, while small bank resolutions are more plentiful, resolving large banks places far greater pressure on the BIF. For example, during the 1987-1992 period, banks with assets greater than $500 million accounted for only 6 percent of the resolutions but 72 percent of the assets of resolved banks and 58 percent of the resulting losses to the BIF (see Table 8).

Projecting Assets of Bank Resolutions: An Actuarial Approach

For the most part, the past serves as a principal guide to the future. Although it is not possible to project failures of individual banks with great accuracy beyond the short term, industry analysts use several approaches to make long-term projections of the BIF's actuarial soundness. Sophisticated models based on historical data and statistical or simulation techniques can be used to predict bank failure.[3] Much can be learned, however, from a simple actuarial approach. An actuarial model divides the population of banks into groups based on indicators of risk to the fund, computes the historical incidence of resolution--a "mortality rate"--for each group over a given time period, and assumes that these group-specific rates will continue over the period

3. See J.B. Thompson, "Predicting Bank Failures in the 1980s," *Economic Review*, Federal Reserve Bank of Cleveland (1st Quarter 1991), pp. 9-20; and G. Whalen, "A Proportional Hazards Model of Bank Failures: An Examination of Its Usefulness as an Early Warning Tool," *Economic Review*, Federal Reserve Bank of Cleveland (1st Quarter 1991), pp. 21-31.

projected (see Box 2).[4] Mortality rates can be based on the number of resolutions or the assets of resolved institutions. Projecting resolved-bank assets provides better information when assessing potential losses to the Bank Insurance Fund because resolution costs are more directly related to assets.

At the end of 1986, banks faced a six-year period during which more than 1,000 would be resolved. By 1992, the condition of the banking industry had changed (see Table 9). The industry showed signs of consolidation as the number of banks fell from 14,660 in 1986 to fewer than 12,000 in 1992 and industry assets grew from $3.2 trillion to $3.7 trillion.[5] At the end of 1986, approximately 16 percent of the banks in the industry were capitalized at less than 6 percent. More important in terms of assessing the BIF's exposure to losses, only 53 percent of industry assets resided in banks that were capitalized at greater than 6 percent. By contrast, at the end of 1992, more than 95 percent of banks holding 85 percent of the industry's assets had equity-to-asset ratios greater than 6 percent.

One way to project assets of resolved banks for the 1993-1998 period is to apply the mortality rates derived from the incidence of resolutions during the 1987-1992 period to industry data from the end of 1992.[6] After applying historical rates to each subgroup, total projected assets of resolved banks can be derived as the total of all subgroups. Although the condition of the banking industry has improved, if the historical rates of resolution from 1987 through 1992 were to continue, the BIF would have to resolve more than $240 billion in assets (an average of $40 billion a year) during the next six years.[7] Estimates made using mortality rates derived from the 1987-1992 period on industry data split into subgroups as of the second quarter of 1993 are very close to estimates using year-end 1992 industry data. The six-year projection of resolved-bank assets using midyear 1993 data is $234 billion. The two estimates are close because the distribution of bank assets did not change much in the six-month period. Depending on assumptions about resolution costs per dollar of assets, projections of losses to the fund based on this estimate of resolved-bank assets could remain relatively high.

The six years of the 1987-1992 period included a national recession, several regional downturns, and particularly high losses on loans. There is evidence, however, that mortality rates have changed in the wake of two years of record profits in the banking industry and better overall economic conditions. Moreover, since the passage of the Federal Deposit Insurance Corporation Improvement Act of 1991, there have been two years of phasing in prompt corrective action. At the close of 1993, there were only 41 bank resolutions, the fewest in any year since 1982, when there were 42 resolutions. The assets of BIF-resolved banks have been falling from a record $63.4 billion in 1991 to $44.2 billion in 1992 and only $3.6 billion in 1993 (see Table 10). The average size of a resolved bank in 1993 was $87 million, down from $363 million in 1992. In addition, only 26 percent of resolved-bank assets in 1993 came from banks with assets greater than $500 million, down from 74 percent in 1992.

Thus, alternative projections of the assets of resolved banks can be made by extending mortality rates derived from more recent periods. If the historical sample is adjusted, it may better show the effect of recent structural and economic changes. For example, by extending the one-year mortality rates derived from resolutions in 1993 to cover a six-year period, it is possible to calculate an alterna-

4. For applications of the actuarial method of projecting losses to the Bank Insurance Fund, see Philip F. Bartholomew and Thomas J. Lutton, "Assessing the Condition of the Bank Insurance Fund," in Federal Reserve Bank of Chicago, *Rebuilding Banking: Proceedings of a Conference on Bank Structure and Competition, May 1-3, 1991*, pp. 87-111; and George E. French, "BIF Loss Exposure: A Simple Actuarial Approach," in Federal Reserve Bank of Chicago, *FDICIA, An Appraisal: Proceedings of the 29th Conference on Bank Structure and Competition, May 1993*, pp. 98-112.

5. The decrease in the number of banks includes resolutions by the FDIC and private mergers. The trend in consolidation continues; there were about 480 mergers in 1993, driving the number of commercial banks below 11,000.

6. The latest available year-end data are for 1992. The six-year mortality rates will give projections for 1993-1998. The observed data for 1993 can be used to adjust these six-year projections to give estimates for the 1994-1998 period.

7. This six-year projection of $240 billion in assets of resolved banks is consistent with a three-year projection of $120 billion (1993-1995) reported by the FDIC in May 1993. See French, "BIF Loss Exposure: A Simple Actuarial Approach," p. 102. These estimates are continually revised on the basis of examiner data and changing assumptions about economic conditions. FDIC and CBO estimates of assets of resolved banks have been revised downward a few times since this estimate was reported.

Box 2.
An Actuarial Framework: Mortality Rates Based on Capitalization and Asset Size

An actuarial framework is useful in examining resolutions that took place between 1987 and 1992. The first step is to classify a bank's assets at a beginning period into different groups based on two dimensions that are directly related to the Bank Insurance Fund's exposure to losses--for example, capitalization and asset size (see table at right). Each institution is grouped according to book-value data recorded at the end of 1986. There are five groups based on capital ratios, and within each of these five groups there are three subgroups divided by size of institution.

Incidence of Asset Resolution

The analysis in the accompanying table records the percentage of assets of banks that were resolved (the "mortality rate" of bank assets) across the different subgroups for the six-year period from 1987 through 1992. The relative incidence of asset resolution over the period in each asset size and equity-to-asset group provides a simple measure of the probability of resolution. The change in the incidence of asset resolution from one group to another in the table clearly indicates that the better capitalized banks were less likely to require resolution than poorly capitalized banks.

Groups of Banks Contrasted

For example, 6 percent of the assets in place in 1986 for Group 1 banks with equity-to-asset ratios greater than 6 percent had to be resolved between 1987 and 1992. By contrast, assets of book-value insolvent banks in Group 5 had an 89 percent chance of requiring resolution by 1992. An average of 7 percent of assets ($237 billion) held by banks at the end of 1986 were resolved over the six-year period.

Assets of Banks Insured and Resolved by the FDIC, Grouped by Capitalization Ratios and Size, 1987-1992

Group/Size	Assets on December 31, 1986 (Billions of dollars) Commercial and Savings Banks	Assets on December 31, 1986 (Billions of dollars) Resolved Banks	Ratio of Resolved Bank Assets to Industry Assets (Percent)
Group 1[a]			
Large	1,129	66	6
Medium	271	20	7
Small	289	15	5
Subtotal	1,689	101	6
Group 2[b]			
Large	1,273	79	6
Medium	85	12	14
Small	56	6	12
Subtotal	1,414	98	7
Group 3[c]			
Large	53	26	49
Medium	4	2	35
Small	3	1	34
Subtotal	61	29	47
Group 4[d]			
Large	3	1	29
Medium	3	2	63
Small	2	2	88
Subtotal	8	5	57
Group 5[e]			
Large	2	2	100
Medium	2	2	100
Small	2	2	69
Subtotal	6	6	89
Total	3,178	237	7

SOURCE: Congressional Budget Office based on data from the Federal Deposit Insurance Corporation and W.C. Ferguson and Company.

NOTE: Large banks have assets greater than $500 million, medium-sized banks have assets between $500 million and $100 million, and small banks have assets less than $100 million.

a. Equity-to-asset ratios greater than 6 percent.

b. Equity-to-asset ratios between 3 percent and 6 percent.

c. Equity-to-asset ratios between 1.5 percent and 3 percent.

d. Equity-to-asset ratios between zero and 1.5 percent.

e. Equity-to-asset ratios less than zero.

Table 9.
An Analysis of Banks and Bank Assets Insured by the Federal Deposit Insurance Corporation, Grouped by Capitalization Ratios and Asset Size, 1986 and 1992

Group/Size	Percentage of Commercial and Savings Banks		Percentage of Assets of Commercial and Savings Banks	
	As of December 31, 1986	As of December 31, 1982	As of December 31, 1986	As of December 31, 1992
Group1[a]				
Large	3.4	5.4	35.5	62.1
Medium	13.3	21.9	8.5	14.1
Small	67.0	67.7	9.1	9.1
Subtotal	83.7	95.1	53.1	85.3
Group 2[b]				
Large	1.0	0.5	40.1	13.0
Medium	1.9	1.2	2.7	0.9
Small	11.4	2.5	1.8	0.3
Subtotal	14.3	4.3	44.5	14.2
Group 3[c]				
Large	0.1	0	1.7	0.1
Medium	0.1	0.1	0.1	0.1
Small	0.7	0.2	0.1	0
Subtotal	0.9	0.3	1.9	0.2
Group 4[d]				
Large	0	0	0.1	0.1
Medium	0.1	0	0.1	0
Small	0.5	0.1	0.1	0
Subtotal	0.6	0.2	0.3	0.1
Group 5[e]				
Large	0	0	0.1	0.1
Medium	0.1	0.1	0.1	0.1
Small	0.4	0.1	0.1	0
Subtotal	0.5	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0
Memorandum:				
Number of Banks	14,660	11,983	n.a.	n.a.
Total Assets (Billions of dollars)	n.a.	n.a.	3,178	3,725

SOURCE: Congressional Budget Office based on data from the Federal Deposit Insurance Corporation and W.C. Ferguson and Company.

NOTE: Large banks have assets greater than $500 million, medium banks have assets between $500 million and $100 million, and small banks have assets of less than $100 million.

n.a. = not applicable.

a. Equity-to-asset ratios greater than 6 percent.

b. Equity-to-asset ratios between 3 percent and 6 percent.

c. Equity-to-asset ratios between 1.5 percent and 3 percent.

d. Equity-to-asset ratios between zero and 1.5 percent.

e. Equity-to-asset ratios less than zero.

Table 10.
Assets and Resolution Costs of Resolved Banks, Grouped by Size, 1992 and 1993

Asset Size	Resolutions		Assets Recorded at Time of Resolution		Average Asset Size (Millions of dollars)	Resolution Costs to the BIF (Millions of dollars)
	Number	Percentage of Total	Millions of Dollars	Percentage of Total		
			1992 Resolutions			
Less Than $100 Million	74	61	2,793	6	38	487
Between $100 Million and $500 Million	33	27	8,748	20	265	971
More Than $500 Million	15	12	32,691	74	2,179	3,252
Total	122	100	44,232	100	363	4,710
			1993 Resolutions			
Less Than $100 Million	33	80	1,210	34	37	199
Between $100 Million and $500 Million	7	17	1,417	40	202	236
More Than $500 Million	1	2	931	26	931	82
Total	41	100	3,558	100	87	516

SOURCE: Congressional Budget Office based on data from the Federal Deposit Insurance Corporation.

NOTES: Banks are grouped according to assets recorded at time of failure.

BIF = Bank Insurance Fund.

tive projection of assets of resolved banks. Rates can be adjusted further to account for elements of prompt corrective action by assuming that mortality rates are virtually 100 percent for banks with equity-to-asset ratios less than 1.5 percent (Groups 4 and 5) in 1992. The resulting projection of the assets of resolved banks indicates that only $33 billion worth of assets may need to be resolved between 1993 and 1998 (an average of $5.5 billion per year).[8] This estimate of resolved-bank assets is consistent with a recent FDIC estimate of the BIF's exposure to losses; the FDIC predicts that $5.8 billion in assets will have to be resolved in 1994.[9]

The wide range of projected assets of resolved banks reflects the sensitivity of estimates to assumptions and reveals a weakness in this approach. A principal weakness of the actuarial method is that it

8. An additional alternative is to derive estimates based on two-year "mortality rates" using 1992 and 1993 resolutions and data from the end of 1991 on the banking industry (also adjusting rates in Groups 4 and 5 to allow for elements of prompt corrective action). Projections based on these assumptions amount to an estimate of $157 billion in assets that may require resolution from 1993 to 1998 (an average of $26 billion in assets per year).

9. Barbara A. Rehm, "42 Banks Failed Last Year, Smallest Number Since 1982," *The American Banker* (January 5, 1994), p. 3.

is sensitive to the period over which the historical sample is chosen. The chance that the assets of an institution will be resolved in the future is based entirely on rates from the previous period among banks with similar characteristics. Another weakness is that only a limited number of characteristics are used to assign banks to groups reflecting risk of loss. The characteristics that are chosen allow the model to account implicitly for the ways in which local and national economic trends affect the condition of the industry. The reason is that, over time, banks move among groups based on changes in these characteristics; for example, when there is an improvement in capitalization or growth in assets an institution may move to a group with reduced risk of resolution. Several factors, however, influence the incidence of resolution for a particular subgroup. Because it has such a limited characterization of institutions, the model cannot explicitly account for the ways in which structural and economic changes affect mortality rates. Thus, the choice of sample significantly determines projected estimates. For example, actuarial projections using mortality rates derived from the 1960s would be very different (lower) than estimates using comparable rates from the 1980s.

One of the advantages of the actuarial approach is its simplicity. Using a limited amount of data and some judgment about the appropriate historical period to account for structural and other external time-varying factors, projections from this model can be used along with other indicators as a guide to estimates of the BIF's exposure to losses. Separating the industry into capitalization and size categories also provides a useful method of comparing the condition of the industry over a period of time (see Table 9).

Reforms in FDICIA and Some Remaining Policy Issues

Concerns about the financial condition of the banking industry and the ability of the Federal Deposit Insurance Corporation to cover losses from the alarming number of resolutions in the 1980s were major motivating factors for the Federal Deposit Insurance Corporation Improvement Act of 1991. Along with recapitalization of the Bank Insurance Fund, a major theme of this legislation is to foster "safety and soundness" in the banking industry. Three of the five titles of FDICIA deal with safety and soundness or regulatory improvement. Interestingly, safety and soundness was the major theme of the Banking Act of 1933 that established the Federal Deposit Insurance Corporation. As a follow-up to FDICIA, the Congress is engaged in continuous oversight of the health of the banking industry and the deposit insurance fund.[10]

A little over two years since its passage, it is difficult to evaluate fully the effects of FDICIA. Nevertheless, the reforms that the act put in place appear to have addressed directly some of the major problems identified during the 1980s--a period that put considerable stress on the regulatory and deposit insurance systems. For example, during the 1980s there was evidence of increased risk in the asset portfolios of banks. The deposit insurance system subsidized risk taking by banks during this period because insurance premiums were unrelated to risk of failure. Banks were particularly tempted to increase returns through riskier instruments because, in effect, any increase in risk was subsidized by the deposit guarantee system. Under FDICIA, the FDIC is required to set premium levels that are sensitive to risk. Moreover, the FDIC must set premiums at a level designed to recapitalize the Bank Insurance Fund to a reserve ratio of 1.25 percent within a 15-year period.

In 1988, the Basle Accord introduced the Bank for International Settlement (BIS) capital standards for banks involved in international finance. The BIS standards require that these banks maintain a capital ratio (based on a risk-weighted measure of assets) of at least 8 percent. FDICIA extends the BIS standards to all banks covered by deposit insurance and requires that regulators periodically review and revise risk-based capital standards to take better account of risks. Higher capital standards also address the deposit insurance system's implicit sub-

10. F. Jean Wells, "Banks and Thrifts: Post-FIRREA, Post-FDICIA," CRS Issue Brief (Congressional Research Service, March 29, 1993).

sidy of risk taking by forcing banks to improve the internalizing of the costs of their portfolio decisions. Also, the larger buffer of capital between solvency of an institution and resolution by the FDIC reduces the risk that taxpayers will have to bail out the fund because failed banks have caused excessive losses.

FDICIA requires annual on-site examinations of insured institutions and generally tougher supervision and regulation.[11] Moreover, the act requires that bank regulators employ regulatory constraints--depending on how a bank is rated in the way it meets minimum prescribed capital levels--and prompt closure of severely undercapitalized institutions. These requirements address the possibility of surprises caused by infrequent examination. More frequent examinations are necessary for prompt corrective action, especially during periods when conditions are deteriorating quickly. Regulators should be better able to take timely supervisory actions with the improved information from examinations. More timely supervision is an attempt to handle the problems of poorly capitalized institutions before they can increase the risk of loss to the insurance fund.

Because banks are operating in a competitive environment, it is uncertain whether the "safety and soundness" provisions of FDICIA will interfere with the ability of banks to make profits in the long term. The share of financial assets held by commercial banks dropped from 57 percent in 1946 to about 30 percent in 1990--and three of the top five issuers of credit cards are not banks--which shows how competitive the environment has become.

The record profits in the two years following enactment of FDICIA tend to obscure the fact that the banking industry has been losing ground to other types of financial services. But to a degree, banks are earning profits by taking advantage of low interest rates, a strategy that exposes them to increased risk in the interest rate market. Some industry analysts are concerned that when economic conditions change so that the returns based on interest rate spreads narrow, it will expose some banks to increased risk of failure. Given the possibility that changing economic conditions may make the industry susceptible to such periodic crises, policymakers are interested in making further structural changes in the banking industry.[12] They are interested in legislative reform that would enable banks to diversify, either geographically or through various product offerings. The Congress is considering an interstate branching bill that would permit banks to diversify their loan portfolios across state lines.

Issues of Structural Reform on the Horizon

Currently, restrictions on interstate banking do not allow federally chartered banks to operate branches across state lines. Banks have developed ways to circumvent these restrictions by using holding companies that may own banks in other states if permitted to by state law. The McFadden-Pepper Act of 1927, as amended, prohibits national banks and state banks that are members of the Federal Reserve System from having branches outside their home state.[13] Most states, however, permit expansion through the bank holding company arrangement. In this way, banks (usually large banks) can diversify their loan portfolios nationally by opening up loan production offices across state borders.

The argument for reducing further restrictions on interstate banking reasons that bank branches will enable banks to diversify their loan portfolios across geographic boundaries, increase customer convenience, and facilitate lending to smaller borrowers. A customer moving from one state to another would not have to change accounts if branches of the institution holding the account were available in the new state. In addition, bank branches may be more efficient than loan offices for lending across state lines. Branches may be less expensive to maintain than a similar number of incorporated sub-

11. Recent legislation (the Community Development Banking and Financial Institutions Act of 1993, for example) specifically provides for regulatory relief in some cases and could water down provisions in FDICIA that call for annual examinations.

12. Barbara A. Rehm, "Policymakers Renewing the Call for Overhaul of Bank Regulations," *The American Banker* (February 17, 1994).

13. Donald T. Savage, "Interstate Banking: A Status Report," *Federal Reserve Bulletin*, vol. 79 (December 1993), pp. 1075-1089.

sidiary banks necessary under a holding company arrangement. Alternatively, there are concerns that federal legislation removing interstate banking restrictions would impair loan service to local communities because of an increased tendency toward industry consolidation, perhaps yielding fewer small, community banks. There are also related concerns that reduced branching restrictions would make it difficult to guard against monopolization of deposits by large banks at the state, regional, and national levels.

Two of the pieces of legislation proposing interstate branching introduced in the 103rd Congress are S. 1963 and H.R. 3841. (The Senate Banking Committee approved S. 1963 on February 24, 1994, and the House of Representatives passed H.R. 3841 on March 9, 1994.) These bills would permit interstate acquisitions by adequately capitalized banks one year after enactment and interstate branching within two to three years. They also address concerns about monopolization by prohibiting any bank from holding more than 25 percent or 30 percent (the Senate and House limits, respectively) of the insured deposits in any state or 10 percent of national insured deposits.

The issues of increased competition and the decline of assets held by banks in relation to nonbanks have led to a call for legislation that would allow banks to diversify their assets further--specifically, by allowing banks to offer securities and insurance products. Opinions differ as to whether such changes would remove barriers to profitable enterprises or increase the risk of loss to the public. Mortality rates might increase because risky nonbanking enterprises impose larger losses on banks. Alternatively, better diversification could reduce the risk of loss. The issue remains controversial and there are, at present, no bills before the Congress that would allow banks to diversify their product lines.